



State of Illinois

ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

December 11, 1992

EPA Region 5 Records Ctr.



386158

Perma-Treat of Illinois, Inc.
Attn: Carol Bond
Carbon Street & Industrial Park Drive
Marion, Illinois 62959

Re: 1990555010 -- Williamson County
Perma-Treat of Illinois, Inc.
ILD063690971
Date Received: October 13, 1992
Log #C-653
RCRA-Closure

Dear Ms. Bond:

The closure plan submitted by Rodger A. Walker, P.E. of Walker Engineering & Contracting on behalf of Perma-Treat has been reviewed by this Agency. Your final closure plan to close the hazardous waste pile (S03) at the above-referenced facility, is hereby approved subject to the following conditions and modifications:

1. Closure activities must be completed by May 15, 1993. When closure is complete the owner or operator must submit to the Agency certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. This certification must be received at this Agency within sixty (60) days after closure, or by July 15, 1993. These dates may be revised if Perma-Treat finds that additional time is required to complete the prescribed closure activities and Perma-Treat demonstrates it is attempting to complete the required closure activities in a timely manner.

The ~~attached~~ closure certification form must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the units approved for closure herein until the Agency approves the facility's closure certification.

The Illinois Professional Engineering Act (Ill. Rev. Stat., Ch. 111, par. 5101 et. seq.) requires that any person who practices professional engineering in the State of Illinois or implies that he (she) is a professional engineer must be registered under the Illinois Professional Engineering Act (par. 5101, Sec. 1). Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E.



Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with par. 5119, sec. 13.1 of the Illinois Professional Engineering Act.

As part of the closure certification, to document the closure activities at your facility, please submit a Closure Documentation Report which includes:

- a. The volume of waste and waste residue removed. The term waste includes wastes resulting from decontamination activities.
- b. A description of the method of waste handling and transport.
- c. The waste manifest numbers.
- d. Copies of the waste manifests.
- e. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.
- f. A chronological summary of closure activities and the cost involved.
- g. Color photo documentation of closure. Document conditions before, during and after closure.
- h. Tests performed, methods and results.

The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Agency by the facility should be mailed to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #33
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

2. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 725.211, the Agency reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.
3. If contamination is detected, the Agency must be notified in writing within fifteen (15) days. A revised closure plan addressing remediation of the contamination detected must be submitted within timeframes established by the Agency.



4. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.
5. The concrete surface directly east of the "Sump Pit" shown in Figure No. 4 of the closure plan (an area approximately 30' (east/west) x 63' (north/south) in size) shall be visually inspected, photographed and any residue adhering to the surfaces must be removed by scraping and/or brushing. This area is the approximate location of the former waste pile. Following this, the concrete surface must be steam cleaned and triple rinsed. Decontamination of these surfaces will be considered complete after they are triple rinsed. All wash and rinse water shall be collected. This water must be analyzed for the characteristics of hazardous waste as set forth in 35 IAC 721, Subpart C. If the wash or rinse water samples exhibit a characteristic of hazardous waste then that material must be managed as a hazardous waste. In any event the material must be managed as a special waste.

After cleaning the concrete surface, an independent registered professional engineer shall inspect the integrity of the concrete surfaces. This surface shall be inspected for cracks which penetrate through the concrete. In addition, all construction joints must be inspected to ensure they are watertight. The results of this inspection shall be: (1) documented in the form of a report, and (2) certified by an independent Illinois registered professional engineer in accordance with 35 IAC 702.106. A copy of this report must be submitted along with the closure documentation report required by Condition 1 above.

The report must include:

- a. The results of the inspection;
- b. Scaled drawings showing the location of all cracks and construction joints observed during the inspection;
- c. Conclusions reached regarding the potential for hazardous wastes and/or hazardous constituents to migrate through any cracks or construction joints observed in the areas of concern;



- d. Justification for the conclusions reached (e.g., information must be provided which indicates that any construction joints in the areas of concern are indeed watertight); and
 - e. Photographs to support the conclusions reached.
6. If joints or other defects are found in the base of the storage areas during the inspection required by Condition 5 above which would potentially allow hazardous waste or hazardous constituents to migrate through them, then soil samples must be collected from beneath them to determine if hazardous waste or hazardous constituents have been released to the underlying soil.
- a. Samples must be collected from at least one location along each joint/crack. The location from which samples are collected along each crack must be biased to any area where there is staining or any low-lying area along the joint/crack.
 - b. Samples must be collected once every 10' along each individual crack;
 - c. Samples must be collected from 0"-6" and from 18"-24" at each location;
 - d. The procedures used to collect and analyze all samples shall be carried out in accordance with the procedures approved in this letter.
7. Based upon a review of available information, the waste pile which is the subject of this closure plan was located on the concrete area which is located in the southeast corner of the "Roofed Process Area, Concrete and Control Room" shown in Figure No. 4 of the closure plan (the area directly east of the "Sump Pit" as shown in the referenced figure). To demonstrate no soil is present in the area surrounding the former waste pile area, soil samples must be collected from the area directly south and east of this area as follows:
- a. Samples must be collected from the area directly east of the subject area at the following locations:
 - 1. Three location approximately three (3) feet from the edge of the concrete. The first location shall be approximately five (5) feet from the southeast corner of the structure. The other two locations shall be spaced approximately 20 feet apart in a northerly direction parallel to the edge of the concrete.
 - 2. Three locations approximately 10' east of the three locations identified above.
 - b. Samples must be collected from the area directly south of the subject area at the following locations:



Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

Page 5

1. Three locations approximately three (3) feet from the edge of the concrete. The first location shall be approximately five (5) feet from the southeast corner of the concrete surface. The other two locations shall be spaced approximately 20 feet apart in a westerly direction parallel to the edge of the concrete.
2. Three locations approximately 10' south of the three locations identified above.
8. Soil samples must be collected at each location identified in Condition 6 and 7 from 0"-6" and 12"-18" below the ground surface. Each sample shall be analyzed for arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium and silver using the TCLP test (Method 1311 in SW-846).
9. To ensure the clean-closure requirements of 35 IAC 725.211, 725.214 and 725.358(a) are met, all soil which remains beneath and around the location of the former waste pile must meet the following clean-up objectives (CUOs):

Constituent	Objective (mg/l)*
Arsenic	0.05
Barium	2.0
Cadmium	0.005
Chromium	0.1
Copper	0.65
Lead	0.0075
Mercury	0.002
Selenium	0.05
Silver	0.05

These objectives are based upon the analysis of the extract of the TCLP test described in Method 1311 of SW-846.

10. If soil is encountered during the sampling/analysis efforts required by Conditions 6 and 7 above which contains contaminants above the CUOs established in Condition 8 above, then additional soil samples must be collected, as necessary to determine the horizontal and vertical extent of soil which exceed these CUOs. The procedures used to collect and analyze these samples must be in accordance with those approved in this letter. The procedures used to determine the horizontal and vertical locations from which soil samples are to be collected in accordance with Sections 13.a and 13.b of the Agency's RCRA closure plan instructions (revised December 1990). However, no random sampling shall be used in making this determination.



11. All soil samples shall be analyzed individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with Test Methods for Evaluating Solid Wastes, Third Edition (SW-846) and Attachment 7 to this Agency's closure plan instruction package. When a SW-846 (Third Edition) analytical method is specified, all the chemicals listed in the Quantitation Limits Table for that method shall be reported unless specifically exempted in writing by the Agency. When visually discolored or contaminated material exists within an area to be sampled, horizontal placement of sampling locations shall be adjusted to include such visually discolored and/or contaminated areas. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter in the third edition of SW-846. For inorganic parameters, the detection limit must be at least as low as the RCRA Groundwater Detection Limits, as referenced in SW-846 (Third Edition) Volume 1A, pages TWO-29 and TWO-30, Table 2-15. If possible, your sampling program should be extensive enough to determine the lateral and vertical extent of contamination to the detection limit (PQLs) referenced above.
12. In addition to scraping steam cleaning and triple rinsing the concrete pads, all equipment and devices involved in the closure of the area where the waste pile was once located shall be steam cleaned and triple rinsed.
13. Contaminated soil may be excavated and disposed off-site at any time during closure. The goal of any such effort should be to remove all soil which exceeds the established cleanup objectives.
14. If soil excavation is the chosen remedial action for any soil contamination encountered, then soil samples must be collected for analysis from the bottom and sidewalls of the final excavation from which contaminated soil was removed. This sampling and analysis effort must be (1) sufficient to demonstrate that the remaining soil meets the established cleanup objectives and (2) carried out in accordance with the following procedures:
 - a. A grid system as set forth in Section 13.b of the Agency's closure plan instructions must be established over the excavation.
 - b. Samples must be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation.
 - c. Samples must be collected 6"-12" from the top of the excavation wall at each grid intersection around the excavation perimeter. Samples must also be collected at the midpoint of the excavation wall at each grid intersection along the excavation perimeter.



- d. Collection/analysis of all required samples must be in accordance with the procedures approved in this letter.
 - e. Soil samples which must be analyzed for volatile organic compounds shall be collected using Attachment 7 of the Agency's RCRA closure plan instructions. In addition, such samples must be collected 6"-12" beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples.
 - f. No random sampling shall be conducted to verify that the cleanup objectives have been met.
15. If soil excavation is the chosen remedial action for any soil contamination encountered, then additional soil must be removed, as necessary, until it can be demonstrated that the remaining soil in and around the area of concern meets the established cleanup objectives. Additional samples must be collected and analyzed in accordance with Condition 13 above from areas where additional soil has been removed.
16. If a decision is made that soil excavation and off-site disposal is not the preferred remedial action for this closure, then the Agency must be notified in writing when such a determination is made. At that time, the Agency will provide Perma-Treat with additional guidance regarding the information which must be submitted to the Agency for review and approval relative to the alternative remedial action which the facility would like to implement.
17. The Agency must be notified in writing if, at any time, it is found that soil contamination above the established cleanup objectives extends to near the water table. This notification must be made within 15 days after such a discovery is made. A plan to investigate for potential groundwater contamination must be submitted to the Agency for review and approval within 60 days after the initial written notification is submitted to the Agency.
18. If groundwater is encountered during any soil removal or sampling activities prior to reaching soil which meets the cleanup objectives, the plan to investigate for potential groundwater contamination must be submitted to the Agency for review and approval. Such a plan must be submitted within sixty (60) days after the date that the analytical results are received which indicate that soil contamination extends to the water table. In addition, the Agency shall be notified in writing of this discovery within five (5) days after these analytical results are received.
19. If clean closure cannot be achieved pursuant to 35 IAC 725.211, 725.214 and 725.358(a) then a modified closure plan and a post-closure plan prepared pursuant to 35 IAC Section 725, Subpart G must be submitted to the Agency for review and approval within 60 days of such a determination.



Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

Page 8

20. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.
21. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 IAC 722.134, those units are subject to the closure requirements identified in 35 IAC 722.134(a)(1).
22. All hazardous wastes that result from this project are subject to annual reporting as required in 35 IAC 722.141 and shall be reported to the Agency by March 1 of the following year for wastes treated and left on-site or shipped off-site for storage, treatment and/or disposal during any calendar year. Additional information and appropriate report forms may be obtained from the Agency by contacting:

Facility Reporting Unit
Division of Land Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, Illinois 62794-9276

Should you have any questions regarding this matter, please contact William T. Sinnott II at 217/524-3300.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control
Bureau of Land

LWE:WTS:sf/sp/689Z,1-8
JKM

Attachment

cc: USEPA Region V -- George Hamper

bcc: Division File
Marion
Jim Moore
Bill Sinnott



State of Illinois

ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

ATTACHMENT

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

Closure Log C-653

The former hazardous waste pile (S03) at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number

Facility Name

Signature of Owner/Operator Date

Name and Title

Signature of Registered P.E. Date

Name of Registered P.E. and Illinois
Registration Number

Mailing Address of P.E.:

Seal of P.E.

WTS:sf/sp/689Z,9